

IN THE CLAIMS:

Claims 2, 14, 20, 22 and 25 are hereby canceled, claims 1, 3, 5-10, 12, 13, 16-18, 23 and 26 -29 have previously been canceled. Claims 4, 11, 19, 21 and 24 are amended herein and new claim 30 is added. Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-3 (Canceled).

4. (Currently Amended) A peptide being immunogenic with lymphocytes directed against metastatic melanoma, said peptide comprising the amino acid sequence of SEQ ID NO:1, wherein said peptide ~~is able to induce~~ has an increased binding affinity towards HLA-A*0201, or to HLA-A*0201 expressing lymphocytes than compared to a peptide comprising the amino acid sequence of SEQ ID NO:9, ~~and wherein said lymphocytes are directed against metastatic melanomas.~~

Claims 5-10 (Canceled).

11. (Currently Amended) A method for isolating melanoma antigen reactive tumor infiltrating lymphocytes, said method comprising the steps of:

- a. taking a sample of a melanoma from a subject;
- b. isolating tumor infiltrating lymphocytes from said sample;
- c. reacting said tumor infiltrating lymphocytes with a peptide comprising ~~at least part of~~ the amino acid sequence of ~~SEQ ID NO:9, wherein an original amino acid at position 2 of SEQ ID NO:9 is substituted with a valine, or an original amino acid at position 8 of SEQ ID NO:9 is substituted with an alanine and SEQ ID NO:1,~~ wherein said peptide ~~is able to induce~~ has an increased binding affinity

- towards HLA-A*0201, or HLA-A*0201 expressing lymphocytes, compared to than a peptide not comprising either of said substitutions the sequence of SEQ ID NO:9, to form an antigen-lymphocyte complex;
- d. obtaining tumor infiltrating lymphocytes reacted with said peptide ~~comprising at least part of the amino acid sequence of SEQ ID NO:9~~ from said reaction mixture of step c [.] ; and
 - e. recovering lymphocytes from said antigen-lymphocyte complex thus isolating melanoma antigen reactive tumor infiltrating lymphocytes.

Claims 12-14 (Canceled).

15. (Previously Presented) A conjugate of the peptide of claim 4 and a detectable marker, wherein said detectable marker is a radionuclide.

Claims 16-18 (Canceled).

19. (Currently Amended) A kit which comprises: conjugates according to claim 14 or 15.

20. (Canceled).

21. (Currently Amended) A vaccine An immunogenic composition comprising the peptide of claim 4, ~~wherein said peptide is able to induce an increased binding affinity towards lymphocytes than a peptide comprising the amino acid sequence of SEQ ID NO:9, and wherein said lymphocytes are directed against metastatic melanomas.~~

Claims 22-23 (Canceled).

24. (Currently Amended) The vaccine immunogenic composition of claim 21 further comprising a pharmaceutically acceptable carrier or diluent.

Claims 25-29 (Canceled).

30. (New) A peptide comprising the amino acid sequence of SEQ ID NO:1.